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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,647	01/18/2001	Mooi Choo Chuah	53	6264

26291 7590 08/04/2004

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EXAMINER

MACE, BRAD THOMAS

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/764,647

Applicant(s)

CHUAH, MOOI CHOO

Examiner

Brad T. Mace

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2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:  
"coveys" should be "conveys" on line 8 of pg.4. "SEU" should be "SDU" on line 21 of pg. 5. Appropriate correction is required.
2. The disclosure is objected to because of the following informalities:  
please fill in the Application No. and filing date on line 8 of pg. 1. Appropriate correction is required.

### ***Drawings***

3. The drawings are objected to because "IEI" should be "IE" (of Octet 1) in Figures 2, 4, and 6. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference 651 of Figure 9. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

5. Claims 4, 7, 9 are objected to because of the following informalities: "as" should be "at" on line 3 of claim 4, on line 3 of claim 5, and on line 3 of claim 9. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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7. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed transmission frame is not a process, machine, manufacture, or composition of matter.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,654,610 (Chen et al.).

9. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1:

10. Chen et al. discloses a mobile station attaching to a wireless data network (col. 11, lines 52-54) (determining if a user (mobile terminal, see Figure 2,

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reference 30) requires resource reservations in both an uplink direction and a downlink direction within the system (wireless data network), thus mobile station attaches to the network), where the mobile station performs asymmetric traffic class negotiation with the wireless data network (col. 11, lines 61-64) (the two-way protocol determines particular values for one or more negotiable quality of service (QoS) parameters for at least one of the uplink direction and the downlink direction. The negotiable quality of service parameters represent different levels of service necessary for various (asymmetric) types of traffic classes (i.e. real-time traffic and non-real-time traffic). Thus performing quality of service negotiation is performing asymmetric traffic class negotiation.).

Regarding claim 2:

11. Chen et al. discloses transmitting to the wireless data network (telecommunication system) a quality of service information element comprising a traffic class indicator (message type) that is indicative of requesting asymmetric traffic classes (col. 11, lines 21-28) (the uplink QoS IE and the downlink QoS IE are included as part of the Activate PDP Context message. The QoS requirements of uplink and downlink are separate, thus need not be the same. Different message types may be used to differentiate between the two so that a receiver can tell whether QoS IEs for uplink, downlink or both are within the same message. Since the message type specifies when both are within the same message, this is indicative of requesting asymmetric traffic classes (different QoS requirements in uplink and downlink).).

Regarding claim 3:

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12. Chen et al. discloses transmitting to the wireless data network a quality of service information element comprising at least two traffic class fields, one for an uplink direction and one for a downlink direction associated with the mobile station (col. 11, 21-23) (the uplink QoS IE and the downlink QoS IE represent at least two different traffic class fields where both are included as part of the Activate PDP Context message).

Regarding claim 10:

13. Chen et al. discloses a transmission frame (QoS IE) representing data embodied in a wireless transmission signal, where the transmission frame (QoS IE) has a field (flag bits) for requesting asymmetric traffic classes for an uplink direction and a downlink direction associated with a mobile station (col. 10, lines 55-67 through col. 11, lines 1-23) (the uplink QoS IE and the downlink QoS IE represent at least two different traffic class fields where both are included as part of the Activate PDP Context message. The QoS IE has flag bits that can indicate that the QoS IE is for both uplink and downlink. Thus since the QoS requests for the uplink may be different for the downlink, the flag bits are requesting asymmetric traffic classes for the uplink and downlink directions.). Also, since the uplink QoS IE and the downlink QoS IE are included as part of the Activate PDP Context message (col. 11, lines 21-23), there is a downlink traffic class field (downlink QoS IE) and an uplink traffic class field (uplink QoS IE).

14. Claims 1, 3, 5, 6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by PCT No. WO 00/10357 (Haumont et al.) (reference submitted by applicant).



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Regarding claim 1:

15. Haumont et al. discloses a method for use in a mobile station (pg. 11, lines 33-35), the method comprising the steps of attaching to a wireless data network (pg. 11, lines 34-35, a dedicated QoS profile for each of several Internet user applications being executed in the mobile station, which indicates the mobile station attaching to a wireless data network). Haumont et al. also discloses performing asymmetric traffic class negotiation with the wireless data network (pg. 11, lines 23-32, since two parameter sets have to be negotiated for uplink and downlink, uplink and downlink flows have different QoS requirements (asymmetric), thus different QoS requirements indicate different traffic classes for uplink and downlink directions, e.g. on pg. 11, lines 23-29).

Regarding claim 3:

16. Haumont et al. also discloses transmitting to the wireless data network a quality of service information element (pg. 11, lines 33-35, QoS profile) comprising at least two traffic class fields, one for an uplink direction and one for a downlink direction associated with the mobile station (pg. 11, lines 27-32, a QoS profile includes two separate values for uplink and downlink (traffic class fields), reciting the limitations of claim 3).

Regarding claim 5:

17. Haumont et al. discloses receiving data in accordance with a first negotiated traffic class (pg. 11, lines 29-32, two parameter sets have to be negotiated, the downlink corresponds to receiving data in accordance with a first negotiated traffic class). Haumont et al. discloses transmitting data in

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accordance with a second negotiated traffic class (pg. 11, lines 29-32, two parameter sets have to be negotiated, the uplink corresponds to transmitting data in accordance with a second negotiated traffic class). The first negotiated traffic class and the second negotiated traffic class are different (pg. 11, lines 23-32, since two parameter sets have to be negotiated for uplink and downlink, uplink and downlink flows have different QoS requirements (asymmetric), thus different QoS requirements indicate different traffic classes for uplink and downlink directions, e.g. on pg. 11, lines 23-29).

Regarding claim 6:

18. Haumont et al. discloses a first packet server (SGSN, see Figure 5) of a wireless network, exchanging messages (see Figure 5, references 5-3 and 5-4) with a second packet server (GGSN, see Figure 5) for the purpose of providing at least one service (see Figure 5, reference 5-5) to a mobile station (MS, see Figure 5) (also see pg. 24 lines 30-35 through pg. 25 lines 1-20). Haumont et al. also discloses transmitting to the second packet server (GGSN, see Figure 5) a message comprising a quality of service information element (pg. 25, lines 4-8, a Create PDP Context Request comprising the negotiated QoS profiles) comprising a field for requesting asymmetric traffic classes for an uplink direction and a downlink direction associated with the mobile station (as stated earlier on pg. 11, lines 29-32, the negotiated QoS profiles are for an uplink direction and a downlink direction associated with the mobile station, and since the "two parameter sets have to be negotiated", "the QoS profile includes two separate values for uplink and downlink", which means the quality of service information

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element comprises a field for requesting asymmetric traffic classes for an uplink direction and a downlink direction).

Regarding claim 8:

19. Haumont et al. discloses a packet server (SGSN) that has a transceiver for exchanging messages (see Figure 5, references 5-3 and 5-4) with a second packet server (GGSN, see Figure 5) for the purpose of providing at least one service (see Figure 5, reference 5-5) to a mobile station (MS, see Figure 5) (also see pg. 24 lines 30-35 through pg. 25 lines 1-20). (It is inherent that the SGSN has a transceiver since it is operating in a GPRS OR General Packet Radio Service (pg. 17, lines 9-12) and since it can receive data from the MS or GGSN and also transmit data from the MS or GGSN (see Figure 5)). Haumont et al. also discloses a processor for causing to be transmitted to the second packet server a message comprising a quality of service information element comprising a field for requesting asymmetric traffic classes for an uplink direction and a downlink direction associated with the mobile station (pg. 25, lines 4-8, the SGSN receives an Activate PDP Context Request and then creates (and sends) a Create PDP Context Request to the GGSN (indicating a processor for the creation of the Create PDP Context Request), this Create PDP Context Request contains the QoS profiles, which as stated earlier on pg. 11, lines 29-32, the negotiated QoS profiles are for an uplink direction and a downlink direction associated with the mobile station, and since the "two parameter sets have to be negotiated", "the QoS profile includes two separate values for uplink and downlink", which means the quality of service information element comprises a

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field for requesting asymmetric traffic classes for an uplink direction and a downlink direction).

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 4, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over by PCT No. WO 00/10357 (Haumont et al.) (reference submitted by applicant) in view of the admitted prior art.

Regarding claim 4:

22. Haumont et al. discloses substantially all the claimed invention as specified above in claims 1 and 3, however, Haumont et al. does not disclose expressly that the quality of service information element further comprises at least two residual bit error rate fields, one for the uplink and one for the downlink; at least two service data unit error ratio fields, one for the uplink and one for the downlink; and at least two transfer delay fields, one for the uplink and one for the downlink.

The admitted prior art discloses that the quality of service information element has a residual bit error rate field (see prior art Figure 2, octet 10), a service data unit error ratio field (see prior art Figure 2, octet 10), and a transfer delay field (see prior art Figure 2, octet 11).

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A person of ordinary skill in the art would have been motivated to employ the admitted prior art in Haumont et al. in order to obtain a QoS IE that incorporates these fields for both the uplink and downlink portions of the QoS IE. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the admitted prior art with Haumont et al. (collectively Haumont et al.-admitted prior art) to obtain the invention as specified in claims 1, 3, and 4. The suggestion/motivation to do so would have been to take these fields and applied them to each of the uplink and downlink portions of the QoS IE, since the values of these fields in the uplink might be different from those in the downlink.

Regarding claim 7:

23. Haumont et al. discloses substantially all the claimed invention as specified above in claim 6, but does not disclose expressly that the quality of service information element further comprises at least two residual bit error rate fields, one for the uplink and one for the downlink; at least two service data unit error ratio fields, one for the uplink and one for the downlink; and at least two transfer delay fields, one for the uplink and one for the downlink.

The admitted prior art discloses that the quality of service information element has a residual bit error rate field (see prior art Figure 2, octet 10), a service data unit error ratio field (see prior art Figure 2, octet 10), and a transfer delay field (see prior art Figure 2, octet 11).

A person of ordinary skill in the art would have been motivated to employ the admitted prior art in Haumont et al. in order to obtain a QoS IE that

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incorporates these fields for both the uplink and downlink portions of the QoS IE. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the admitted prior art with Haumont et al. (collectively Haumont et al.-admitted prior art) to obtain the invention as specified in claims 6 and 7. The suggestion/motivation to do so would have been to take these fields and applied them to each of the uplink and downlink portions of the QoS IE, since the values of these fields in the uplink might be different from those in the downlink.

Regarding claim 9:

24. Haumont et al. discloses substantially all the claimed invention as specified above in claim 8, but does not disclose expressly that the quality of service information element further comprises at least two residual bit error rate fields, one for the uplink and one for the downlink; at least two service data unit error ratio fields, one for the uplink and one for the downlink; and at least two transfer delay fields, one for the uplink and one for the downlink.

The admitted prior art discloses that the quality of service information element has a residual bit error rate field (see prior art Figure 2, octet 10), a service data unit error ratio field (see prior art Figure 2, octet 10), and a transfer delay field (see prior art Figure 2, octet 11).

A person of ordinary skill in the art would have been motivated to employ the admitted prior art in Haumont et al. in order to obtain a QoS IE that incorporates these fields for both the uplink and downlink portions of the QoS IE. At the time the invention was made, therefore, it would have been obvious to one

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of ordinary skill in the art to which the invention pertains to combine the admitted prior art with Haumont et al. (collectively Haumont et al.-admitted prior art) to obtain the invention as specified in claims 8 and 9. The suggestion/motivation to do so would have been to take these fields and applied them to each of the uplink and downlink portions of the QoS IE, since the values of these fields in the uplink might be different from those in the downlink.

### **Conclusion**

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

\*Puuskari discloses a method for controlling a quality of service in a  
mobile communications system

\*Forssell et al. discloses a method and apparatus providing multiple  
temporary block flow (TBF) mapping to upper layer when operating  
in GSM/EDGE radio access network (GERAN) A/GB mode

\*Kannas et al. discloses a dynamic upgrade of quality of service in a  
packet switched network

\*Widegren et al. discloses an application influenced policy

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (703)-306-5454. The examiner can normally be reached on M-F, with the exception of every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)-305-4798. The fax

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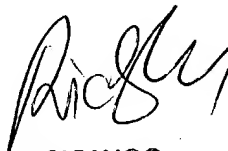
phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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btm

Brad T. Mace  
Examiner  
Art Unit 2663

btm  
July 16, 2004

  
RICKY NGO  
PRIMARY EXAMINER